AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Application No.: 10/592,008

AMENDMENTS TO THE SPECIFICATION

Please replace the second full paragraph at page 1 with the following amended

paragraph:

In recent years, the number of LSIs (large scale integrated circuits) mounted in each of

electronic systems such as personal computers tends to increase. As a result, in order to stably

operate the electronic system, it is necessary to mount on a board many decoupling capacitors

adapted for preventing mutual interference between the LSIs. Further, LSIs have been increasing

in speed and there are those LSIs whose operating frequencies exceed 1 GHz. On the other hand,

there are many cases where low-speed operating LSIs are also still used on the same board. In

this case, it is necessary that a plurality of capacitors having different capacitances be combined

and mounted on the board for decoupling over a range from low frequency of several tens of kHz

to high frequency of approximately several GHz.

Please replace the second full paragraph at page 2 with the following amended

paragraph:

The first problem is that its external shape is large as compared with a conventional chop

capacitor or the like. Therefore, not only is it not possible to largely reduce the area occupied by

decoupling elements on the printing board, but it cannot be expected that the difficulty of layout

is solved-from the root.

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Please replace the heading at page 2, line 23 with the following amended heading:

Summary-Disclosure of the Invention

Please replace the paragraph bridging pages 4 and 5 with the following amended

paragraph:

In order to realize excellent decoupling properties over the wide band from low

frequency to high frequency in a transmission line element, it is necessary to reduce parasitic

inductance and parasitic resistance caused by a transmission line and further to reduce

characteristic impedance of the transmission line. The reason of necessity for reducing the

parasitic inductance is as stated before. Further, since a resistance component serves also as an

impedance component-as it is, as the parasitic resistance increases, the impedance also increases.

The increase in impedance leads to degradation of the decoupling properties and, therefore, it is

necessary to also reduce the parasitic resistance-like the parasitic inductance. Likewise, as the

characteristic impedance of the transmission line decreases, more excellent decoupling properties

are exhibited.

Please replace the first two full paragraphs at page 7 with the following amended

paragraphs:

As will be described later, by forming the conductor layer 30 on the surface of the first

electrode layer 10, only the constituent substances of the conductor layer exist near the surface of

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the first electrode layer 10, so that it is possible to exclude oxygen molecules and nitrogen molecules from the vicinity of the surface of the first electrode layer 10. Therefore, oxidation, nitriding, or oxynitriding of the first electrode layer 10 slowly proceeds by oxygen or nitrogen slightly supplied through the conductor layer 30. As a result, the dielectric layer 20 can be formed-with, by controlling its thickness, well-controlled-to be thin.

With respect to the frequency dependence of conductivity of a resin forming the binder layer 31, any of an organic resin, a conductive polymer, and an organic-inorganic hybrid resin exhibits significant frequency dependence wherein the conductivity decreases particularly in a high-frequency range. However, since the conductivity of the conductive nanoparticles 32 of a metal or a metal oxide is approximately hundreds of thousands of S/cm (Seimens per centimeter) and has almost no frequency dependence, by mutually uniformly dispersing the binder layer 31 and the conductive nanoparticles 32 to form the conductor layer 30, the conductor layer 30 can maintain a substantially-constant high conductivity over a wide frequency range.

Please replace the first full paragraph at page 10 with the following amended paragraphs:

The second electrode layer 40 is preferably made of a material that is stable alone or that is oxidized or sulfidized at its surface and then becomes stable, such as gold, silver, or aluminum, but is not necessarily limited thereto. On the other hand, when the conductivity of the conductor layer 30 after the baking becomes substantially equal to that of a metal, the effect of this invention is not speiled maintained even if the second electrode layer 40 is not formed.

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Please replace the last two paragraphs at page 11 with the following amended paragraphs:

Next, referring to FIGS. 3A to 3E, description will be given of a method of fabricating the microstrip line of the first embodiment. FIGS. 3A to 3E are sectional views showing fabrication processes of the microstrip line in the order of process. <u>Identical elements in Figs.</u> 3A to 3E are designated by the same reference numerals, unless otherwise indicated.

At first, although not illustrated, a mixture for forming the conductor layer 30 is prepared. This mixture is formed by mutually dispersing the organic resin, the conductive polymer, or the organic-inorganic hybrid resin being the material of the binder layer 31 and the conductive nanoparticles 32. A dispersion method may be ultrasonic dispersion, three-roll mill dispersion, or the like, i.e. its technique is not particularly-questioned limited, but, the binder and the conductive nanoparticles 32 are dispersed sufficiently uniformly. Herein, if the dispersion is insufficient, the uniform conductor layer 30 cannot be formed.

Please replace the second full paragraphs at page 15 with the following amended paragraphs:

Next, referring to FIG. 3 FIGS. 3A to 3E, the fabrication method of the element according to the first embodiment will be described in terms of a specific Example.